

Date: <u>1-18-01</u>
EXPRESS MAIL LABEL NO. <u>EL762340516US</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Junming Le, Jan Vilcek, Peter Daddona, John Ghrayeb, David M. Knight
and Scott Siegel

Title: ANTI-TNF ANTIBODIES AND PEPTIDES OF HUMAN TUMOR
NECROSIS FACTOR

TRANSMITTAL OF SEQUENCE LISTING IN COMPUTER READABLE FORM
IN COMPLIANCE WITH 37 C.F.R. §§1.821(e) AND (f)


Box Sequence
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Transmitted herewith is a copy of the "Sequence Listing" in computer readable form as required by 37 C.F.R. §1.821(e). As required by 37 C.F.R. §1.821(f), Applicant's Attorney hereby states that the content of the "Sequence Listing" in paper form and of the computer readable form of the "Sequence Listing" are the same.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 
Carolyn S. Elmore
Registration No. 37,567
Telephone (781) 861-6240
Facsimile (781) 861-9540

Lexington, Massachusetts 02421-4799

Date: 1/18/01

SEQUENCE LISTING

<110> Junming Le
Jan Vilcek
Peter Daddona
John Ghrayeb
David M. Knight
Scott Siegel

<120> Anti-TNF Antibodies and Peptides of
Human Tumor Necrosis Factor

<130> 0975.1005-010

<150> U.S. 09/133,119
<151> 1998-08-12

<150> U.S. 08/570,674
<151> 1995-12-11

<150> U.S. 08/324,799
<151> 1994-10-18

<150> U.S. 08/192,102
<151> 1994-02-04

<150> U.S. 08/192,861
<151> 1994-02-04

<150> U.S. 08/192,093
<151> 1994-02-04

<150> U.S. 08/010,406
<151> 1993-01-29

<150> U.S. 08/013,413
<151> 1993-02-02

<150> U.S. 07/943,852
<151> 1992-09-11

<150> U.S. 07/853,606
<151> 1992-03-18

<150> U.S. 07/670,827
<151> 1991-03-18

<160> 19

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 157
<212> PRT
<213> Peptide

0975.1005-010

Val	Arg	Ser	Ser	Ser	Arg	Thr	Pro	Ser	Asp	Lys	Pro	Val	Ala	His	Val
1				5					10					15	
Val	Ala	Asn	Pro	Gln	Ala	Glu	Gly	Gln	Leu	Gln	Trp	Leu	Asn	Arg	Arg
			20					25					30		
Ala	Asn	Ala	Leu	Leu	Ala	Asn	Gly	Val	Glu	Leu	Arg	Asp	Asn	Gln	Leu
			35				40					45			
Val	Val	Pro	Ser	Glu	Gly	Leu	Tyr	Leu	Ile	Tyr	Ser	Gln	Val	Leu	Phe
	50					55					60				
Lys	Gly	Gln	Gly	Cys	Pro	Ser	Thr	His	Val	Leu	Thr	His	Thr	Ile	
65					70					75				80	
Ser	Arg	Ile	Ala	Val	Ser	Tyr	Gln	Thr	Lys	Val	Asn	Leu	Leu	Ser	Ala
				85					90					95	
Ile	Lys	Ser	Pro	Cys	Gln	Arg	Glu	Thr	Pro	Glu	Gly	Ala	Glu	Ala	Lys
			100					105					110		
Pro	Trp	Tyr	Glu	Pro	Ile	Tyr	Leu	Gly	Gly	Val	Phe	Gln	Leu	Glu	Lys
		115					120					125			
Gly	Asp	Arg	Leu	Ser	Ala	Glu	Ile	Asn	Arg	Pro	Asp	Tyr	Leu	Asp	Phe
	130					135					140				
Ala	Glu	Ser	Gly	Gln	Val	Tyr	Phe	Gly	Ile	Ile	Ala	Leu			
145					150						155				

<213> cDNA

 $\langle 222 \rangle \quad (0) \dots (321)$

gac atc ttg ctg act cag tct cca gcc atc ctg tct gtg agt cca gga 48
Asp Ile Leu Leu Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
1 5 10 15

gaa aga gtc agt ttc tcc tgc agg gcc agt cag ttc gtt ggc tca agc 96
Glu Arg Val Ser Phe Ser Cys Arg Ala Ser Gln Phe Val Gly Ser Ser
20 25 30

atc cac tgg tat cag caa aga aca aat ggt tct cca agg ctt ctc ata 144
Ile His Trp Tyr Gln Gln Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile
35 40 45

aag tat gct tct gag tct atg tct ggg atc cct tcc agg ttt agt ggc 192
Lys Tyr Ala Ser Glu Ser Met Ser Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

agt gga tca ggg aca gat ttt act ctt agc atc aac act gtg gag tct 240
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Asn Thr Val Glu Ser
 65 70 75 80

gaa gat att gca gat tat tac tgt caa caa agt cat agc tgg cca ttc 288
Glu Asp Ile Ala Asp Tyr Tyr Cys Gln Gln Ser His Ser Trp Pro Phe
85 90 95

321

<400> 3															
Asp	Ile	Leu	Leu	Thr	Gln	Ser	Pro	Ala	Ile	Leu	Ser	Val	Ser	Pro	Gly
1				5					10					15	
Glu	Arg	Val	Ser	Phe	Ser	Cys	Arg	Ala	Ser	Gln	Phe	Val	Gly	Ser	Ser
			20					25					30		
Ile	His	Trp	Tyr	Gln	Gln	Arg	Thr	Asn	Gly	Ser	Pro	Arg	Leu	Leu	Ile
		35					40					45			
Lys	Tyr	Ala	Ser	Glu	Ser	Met	Ser	Gly	Ile	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Ser	Ile	Asn	Thr	Val	Glu	Ser
65					70					75				80	
Glu	Asp	Ile	Ala	Asp	Tyr	Tyr	Cys	Gln	Gln	Ser	His	Ser	Trp	Pro	Phe
				85					90					95	
Thr	Phe	Gly	Ser	Gly	Thr	Asn	Leu	Glu	Val	Lys					
			100					105							

```
<220>  
<221> CDS  
<222> (0) ... (357)
```

<400> 4																
gaa	gtg	aag	ctt	gag	gag	tct	gga	gga	ggc	ttg	gtg	caa	cct	gga	gga	48
Glu	Val	Lys	Leu	Glu	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly	
1				5					10					15		
tcc	atg	aaa	ctc	tcc	tgt	gtt	gcc	tct	gga	ttc	att	ttc	agt	aac	cac	96
Ser	Met	Lys	Leu	Ser	Cys	Val	Ala	Ser	Gly	Phe	Ile	Phe	Ser	Asn	His	
			20					25					30			
tgg	atg	aac	tgg	gtc	cgc	cag	tct	cca	gag	aag	ggg	ctt	gag	tgg	gtt	144
Trp	Met	Asn	Trp	Val	Arg	Gln	Ser	Pro	Glu	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
gct	gaa	att	aga	tca	aaa	tct	att	aat	tct	gca	aca	cat	tat	gcg	gag	192
Ala	Glu	Ile	Arg	Ser	Lys	Ser	Ile	Asn	Ser	Ala	Thr	His	Tyr	Ala	Glu	
	50					55				60						
tct	gtg	aaa	ggg	agg	ttc	acc	atc	tca	aga	gat	gat	tcc	aaa	agt	gct	240
Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Ser	Ala	
65				70						75					80	

```
<210> 5
<211> 119
<212> PRT
<213> Protein
```

```
<210> 6
<211> 8
<212> PRT
<213> Protein
```

```
<210> 7
<211> 7
<212> PRT
<213> Protein
```

<400> 7
Gly Thr Lys Leu Glu Ile Lys
1 5

<210> 8
 <211> 20
 <212> DNA
 <213> cDNA

<400> 8
 cctggatacc tgtgaaaaga 20

<210> 9
 <211> 27
 <212> DNA
 <213> cDNA

<400> 9
 cctggtacct tagtcaccgt ctctca 27

<210> 10
 <211> 27
 <212> DNA
 <213> cDNA

<400> 10
 aatagatatc tccttcaaca cctgcaa 27

<210> 11
 <211> 21
 <212> DNA
 <213> cDNA

<400> 11
 atcgggacaa agttggaaat a 21

<210> 12
 <211> 16
 <212> DNA
 <213> cDNA

<400> 12
 ggcggtctgg taccgg 16

<210> 13
 <211> 19
 <212> DNA
 <213> cDNA

<400> 13
 gtcaacaaca tagtcatca 19

<210> 14
 <211> 23
 <212> DNA
 <213> cDNA

<400> 14
 cacagtggtg tccccaagga aaa 23

<210> 15
 <211> 18
 <212> DNA
 <213> cDNA

<400> 15
 aatctggggt aggcacaa

18

<210> 16
 <211> 17
 <212> DNA
 <213> cDNA

<400> 16
 agtgtgtgtc cccaagg

17

<210> 17
 <211> 24
 <212> DNA
 <213> cDNA

<400> 17
 cacagctgcc cgcccaggtg gcat

24

<210> 18
 <211> 17
 <212> DNA
 <213> cDNA

<400> 18
 gtcgccagtg ctcccctt

17

<210> 19
 <211> 20
 <212> DNA
 <213> cDNA

<400> 19
 atcggacgtg gacgtgcaga

20

18
17
24
17
20